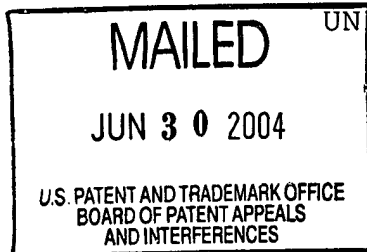


The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 22



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DUANE SCOTT DEWALD

Appeal No. 2003-2094
Application No. 09/750,640

ON BRIEF

Before KIMLIN, DIXON and TIMM, Administrative Patent Judges.
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-7, 10-13 and 15-20. Claims 8, 9, 14 and 21-30, the other claims remaining in the present application, have been withdrawn from consideration. Claim 1 is illustrative:

1. An integrating rod comprised of:

an elongated body, said elongated body operable to reflect light traveling through said elongated body;

an entrance face on a first end of said elongated body;
and

a mirrored entrance aperture at said entrance face, said mirrored entrance aperture having a transmissive entrance aperture portion and a mirrored portion, said mirrored entrance aperture allowing light to pass through the aperture thereof to enter the elongated body of said integrating rod, said mirrored entrance aperture operable to reflect light traveling through said elongated body to said entrance face that strikes said mirrored entrance aperture outside said transmissive entrance aperture portion.

In the rejection of the appealed claims, the examiner relies upon the following reference:

Kaplan et al. (Kaplan)	5,335,158	Aug. 2, 1994
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Appellant's claimed invention is directed to an integrating rod that is used "to homogenize a beam of light prior to modulating the beam of light using a light valve" (page 1 of specification, first paragraph). The integrating rod comprises, inter alia, a mirrored portion of a mirrored entrance aperture located at the entrance face of an elongated body.

Appealed claims 1, 2, 5, 6 and 15-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kaplan. In addition, claims 3, 4, 7 and 10-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaplan.

We have thoroughly reviewed the respective positions advanced by appellant and the examiner. In so doing, we find that the examiner's rejections are not well-founded and supported by the evidence relied upon. Accordingly, we will not sustain the examiner's rejections.

A threshold issue on appeal is whether Kaplan describes within the meaning of § 102 a mirrored portion at the entrance aperture of an elongated body. The examiner cites surface 24 of Kaplan for meeting the claim requirement of a mirrored portion because "Kaplan teaches the surface in question to be 'highly reflective'" (page 4 of Answer, penultimate paragraph). According to the examiner, the "highly reflective" surface of Kaplan satisfies "the definition of 'reflecting a large fraction of incident light' as set forth in the dictionary citation provided by appellant" (id.). However, as properly noted by appellant, the examiner has neglected a most pertinent portion of the definition of mirror provided by appellant, to wit, [a] surface which specularly reflects a large fraction of incident light" (page 4 of principal brief, penultimate paragraph, emphasis added). Significantly, Kaplan discloses that surface 24 of cavity 12 is painted with a "paint which is a highly reflective diffuse white paint" (column 5, line 2, emphasis

added). It is also noteworthy that Kaplan describes conical surface 42, unlike surface 24, as a mirror, specular reflecting surface (see column 3, line 68 and column 4, line 14). Hence, although surface 24 of Kaplan may be highly reflective, the examiner has not refuted appellant's compelling argument that surface 24 of Kaplan does not comprise the claimed mirrored portion. Accordingly, we find no error in appellant's conclusion that "Kaplan's diffuse surface 24 cannot be considered 'a mirrored entrance aperture' as recited by Claim 1" (page 4 of principal brief, penultimate paragraph).

As for claim 16, we do not agree with the examiner that Kaplan describes the claim recitation that the elongated body is a solid transparent body. It is quite apparent that the "elongated body" 14 of Kaplan comprises a cavity 12 and, therefore, is not a solid transparent body. We are not persuaded by the examiner's argument that "the elongated body is not considered to be limited to item 12 but rather the structure shown in the two Appendices provided by the examiner" (sentence bridging pages 6 and 7 of Answer). It is of no moment that the elongated body is not limited to cavity 12. Rather, since the elongated body includes cavity 12 it cannot be considered a solid transparent body. Furthermore, although the examiner maintains

that "Kaplan teaches in column 4 a solid glass arrangement for the device which is seen to satisfy the requirement for a 'solid' body" (page 7 of Answer, first paragraph), we subscribe to appellant's reasoning that "the solid compound parabolic concentrator 40' appears to be an alternative to the left portion of the body 14 shown in Figure 2-not a replacement for the body 14 of Figure 2" (page 2 of Reply Brief, second paragraph). It is clear to us that the solid compound parabolic concentrator described at column 4 of Kaplan refers to the high collection non-imaging optical device (portion 40 of Figure 2), and not the portion described as the elongated light integrating cavity (feature 12 of Figure 2).

As for the § 103 rejection of claim 7 which defines a metal layer deposited on the entrance face, we agree with appellant that Kaplan provides no suggestion or motivation for replacing the light diffusing paint on surface 24 of Kaplan with a mirrored metal layer. Kaplan expressly discloses the advantage of a light diffusing layer on surface 24 by teaching that diffuse illumination of the film provides good scratch suppression (column 5, lines 47-49; see also lines 62-63).

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